IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art

Examiner:

Date: December 26, 2000

In re the Application of: H. WATANABE et al.

Serial No.: 09/320,271

Filed: May 27, 1999

For: SEMICONDUCTOR DEVICE AND FABRICATION METHOD THEREOF

REQUEST FOR RECONSIDERATION

Director of Patents and Trademarks Washington, D.C. 20231

Sir:

In response to the Office Action dated September 27, 2000, applicants request favorable reconsideration of the above-identified application. Claims 1-20 are pending, wherein claims 14-20 stand withdrawn from further consideration as being directed to a non-elected invention.

Claims 1-5 and 7-13 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U. S. Patent No. 6,071,807. This rejection is respectfully traversed.

The claims of the present application are patentably distinct from the claims 1-12 of the '807 patent. Claim 1 of the '807 patent requires the step of forming an interconnection on a substrate, whereas the claims of the present application do not contain this limitation. More specifically, claim 1 of the present application requires forming a first insulation layer on a substrate, whereas claim 1 of the '807 patent requires forming a first insulation film so as to be in contact on said interconnection.

The present specification provides a discussion which highlights these differences. More specifically, at page 9, beginning at line 21, it is discussed that when an organic SOG film is applied

on an uneven surface such as an underlying interconnection pattern, the film thickness of the organic SOG film 3 may vary depending on whether there is an interconnection thereunder or not. If ion implantation is carried out in such a state, the lower layer portion of the organic SOG film will include a portion that is modified and a portion that is not modified. This will induce various problems which are discussed in the specification. Therefore, in the present invention, the organic SOG film is formed on a flat underlying face prior to formation of a metal interconnection so that the film thickness is substantially uniform and that the entire organic SOG film is modified substantially uniformly.

For at least the above reasons, the claims are patentably distinct from claims 1-12 of U. S. Patent No. 6,071,807.

Applicants acknowledge the indication that claim 6 would be allowable if rewritten in independent form. However, it is respectfully submitted that all of the pending claims are allowable.

For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Should the Examiner deem that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned attorney.

In the event that this paper is not timely filed, applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees which may be due with respect to this paper, may be charged to Deposit Account No. 01-2340.

Respectfully submitted,

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